APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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ART UNIT	PAPER NUMBER
2681	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		09/428,912	KIM ET AL.
		Examiner	Art Unit
		Sheila B. Smith	2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 February 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-4,7,10-25 and 27-43</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>10-13,17-19,35 and 36</u> is/are allowed.

6)☒ Claim(s) <u>1-4,7,14-16,20-25,27-34 and 37-43</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1.   Claims 1-4,7,14, and 20-24, 27-34 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Choi et al. (U.S. Patent Number 5,781,553) in view of Bilgic et al. (U.S.

Patent Number 5,884,148).

Regarding *claims 1 and 14,20-24,* Choi et al. discloses essentially all the claimed

invention as set fourth in the instant application, further Choi et al. discloses a digital wireless

private branch exchange system. In addition Choi et al. discloses a data communication control

system in a mobile communication system, comprising a base station controller (320) and

switching system (320, the DNIC) which determines a communication path in response to a call

request requested by a calling party, and outputs data and signals which control call connection

between the calling party and a called party through the determined communication path (which

reads on column 8 lines 15-30); and a data control system (234) which selectively modulates and

demodulates data from said base station controller and switching system by performing protocol

communication with said base station controller and switching system (which reads on column 2

lines 33-38). However Choi et al. fails to specifically disclose a switching system, which

determines a communication path, which selectively provides a voice communication service or

a data communication service.

In the same field of endeavor, Bilgic et al. discloses wireless local loop system and method. In addition Bilgic et al. discloses the use of a switching system which determines a communication path which selectively provides a voice communication service or a data communication service as disclosed in column 15 lines 40-45.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Choi et al. by modifying a digital wireless private branch exchange system with the use of a switching system which determines a communication path which selectively provides a voice communication service or a data communication service as taught by Bilgic et al. for the purpose of operating devices at a variety of speeds.

Regarding claim 2, Choi et al. in view of Bilgic et al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses at least one of the calling party and the called party includes a data terminal which outputs predetermined data, and a communication device connected with the data terminal which transmits the data on a wireless or wire communication network (which reads on column 8 lines 15-30).

Regarding claim 3, Choi et al. in view of Bilgic et al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses a data control system comprises a connection device to mobile data which provides a data path for signals and data transmission between a base station and said data control system (which reads on column 8 lines 15-30); a connection device to public network data which connects a public network of said data control system with a public network of said base station controller and switching system and sets a data

traffic path between said data control system and said base station controller and switching

system (which reads on column 2 lines 33-38); a data processing device which performs protocol

communication with the base station and selectively modulates and demodulates input data to

provide the modulated or demodulated data to the called party or the calling party (which reads

on column 2 lines 33-38); and a main processing device which assigns a resource of said data

control system and identifies the state of the resource in response to a data call request of the

base station (which reads on column 8 lines 60-68).

Regarding claims 4, and 7, Choi et al. in view of Bilgic et al. discloses everything

claimed as applied above (see claim 1), in addition Choi et al. discloses a switching device

(320, the DNIC) which switches and controls the resources assigned to said data processing

device and said connection device to public network data by a control signal of said main

processing device (which reads on column 8 lines 15-30).

Regarding claim 27, Choi et al. in view of Bilgic et al. discloses everything claimed as

applied above however Choi et al. fails to specifically disclose (a) a data communication system,

comprising: a fist communication device; a second communication device; and communication

network which exchanges data between said first communication device and said second

communication device and (b) a first and second data transfer protocol being different.

In the same field of endeavor, Bilgic et al. discloses wireless local loop system and

method. In addition Bilgic et al. discloses (a) a data communication system, comprising: a fist

communication device (105); a second communication device(105a-c); and communication

network (120) which exchanges data between said first communication device and said second communication device (which reads on column 4 lines 23-55).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Choi et al. by modifying a digital wireless private branch exchange system with the use of (a) a data communication system, comprising: a fist communication device; a second communication device; and communication network which exchanges data between said first communication device and said second communication device as taught by Bilgic et al. for the purpose of operating a plurality of devices

The examiner contends however that (b) the use of protocols being different is well known in the art, and the examiner takes official notice as such.

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the combined teachings of Choi et al. in view of Bilgic et al. with the well known prior art, since such as protocols are known to be widely used in the industry for the purpose of connecting a end user to the network.

Regarding claim 28, Choi et al. in view of Bilgic et al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses second communication device comprises a first computer (which reads on a CPU 331) coupled to a mobile telephone (which reads on a terminal device 120).

Regarding claim 29, Choi et al. in view of Bilgic et al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses second communication device comprises a second computer (which reads on 331)coupled to a modem (which reads on base band modem 337).

Regarding claims 30-34, Choi et al. in view of Bilgic et al discloses everything claimed

as applied above (see claim 1), in addition Choi et al. discloses a data control system comprises a

connection device to mobile data which provides a data path for signals and data transmission

between a base station and said data control system (which reads on column 8 lines 15-30); a

connection device to public network data which connects a public network of said data control

system with a public network of said base station controller and switching system and sets a data

traffic path between said data control system and said base station controller and switching

system (which reads on column 2 lines 33-38); a data processing device which performs protocol

communication with the base station and selectively modulates and demodulates input data to

provide the modulated or demodulated data to the called party or the calling party (which reads

on column 2 lines 33-38); and a main processing device which assigns a resource of said data

control system and identifies the state of the resource in response to a data call request of the

base station (which reads on column 8 lines 60-68).

2.   Claims 15, 16, 25, and 37-43 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Choi et al. (U.S. Patent Number 5,781,553) in view of Bilgic et al. and further in view of

Petch et al. (U.S. Patent Number 5,781,593) .

Regarding claims 15, 16, Choi et al. in view of Bilgic et al. discloses everything

claimed as applied above (see claim 1), however, the combination of Choi et al. in view of Bilgic

et al. fails to specifically discloses the use of a selector vocoder controller, data communication

radio link protocol unit, and a vocoder.

In the same field of endeavor, Petch et al. discloses methods and apparatus for vocoder

synchronization in mobile communication network. In addition Petch et al. discloses the use of a

selector vocoder controller, data communication radio link protocol unit, and a vocoder as

disclosed in column 8 lines 25-40.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to improve the combination of Choi et al. in view of Bilgic et al. by

modifying a digital wireless private branch exchange system with the use of selector vocoder

controller, data communication radio link protocol unit, and a vocoder as taught by Petch et al.

for the purpose of decompressing the received data into its original form.

Regarding claims 25, Choi et al. in view of Bilgic et al. discloses everything claimed as

applied above (see claim 1), in addition Choi et al. discloses protocol processor further

comprises: a transmission controller coupled to said application interface controller (which reads

on column 8 lines 15-30); an inter-terminating point link controller, which builds a protocol

stack; a transmission interrupting unit, which transmits data from a public network subscriber to

a mobile communication subscriber (which reads on column 8 lines 15-30); a reception

interrupting unit, which transmits data from the mobile communication subscriber to the public

network subscriber; a transmission frame forming or releasing part, which forms or releases a

frame of transmission/receiving data. However, the combination of Choi et al. in view of Bilgic

et al. fails to specifically discloses a selector vocoder control module (SVCM), which manages

signaling with a selector vocoder of said base station controller and switching system.

In the same field of endeavor, Petch et al. discloses methods and apparatus for vocoder

synchronization in mobile communication network. In addition Petch et al. discloses the use of a

selector vocoder control module (SVCM), which manages signaling with a selector vocoder of

said base station controller and switching system as disclosed in column 8 lines 25-40.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time

the invention was made to improve the combination of Choi et al. in view of Bilgic et al. by

modifying a digital wireless private branch exchange system with the use of a selector vocoder

control module (SVCM), which manages signaling with a selector vocoder of said base station

controller and switching system as taught by Petch et al. for the purpose of decompressing the

received data into its original form.

Regarding claim 37, Choi et al. in view of Bilgic et al. and further in view of Petch et

al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses a

method for controlling a data communication between a calling party and a called party in a

communication system, comprising; information arrival of a call setting request message in

response to a call request signal of the calling party (which reads on column 8 lines 15-30);

identifying a type of a call; assigning a modem resource suitable for the type of call (which reads

on column 2 lines 25-32); performing protocol communication between a data processing device

and the calling party using link resources provided between a base station controller and

switching system and a connection device to mobile data (which reads on column 2 lines 33-38);

connecting to the called party through a channel resource (which reads on column 1 lines 21-28);

setting a communication path based on a connection state (which reads on column 2 lines 33-38);

and performing data communication between the calling party and the called party through the

communication path (which reads on column 8 lines 15-30).

Regarding claims 38, 39, Choi et al. in view of Bilgic et al. and further in view of Petch et al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses a method for controlling a data communication requesting a path setting request message (which reads on column 8 lines 15-30); a connection to a public network (which reads on column 2 lines 33-38); a and informing a main processing device of a connection result (which reads on column 2 lines 33-38).

Regarding claims 40-42, Choi et al. in view of Bilgic et al. and further in view of Petch et al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses a data control system comprises a connection device to mobile data which provides a data path for signals and data transmission between a base station and said data control system (which reads on column 8 lines 15-30); a connection device to public network data which connects a public network of said data control system with a public network of said base station controller and switching system and sets a data traffic path between said data control system and said base station controller and switching system (which reads on column 2 lines 33-38); a data processing device which performs protocol communication with the base station and selectively modulates and demodulates input data to provide the modulated or demodulated data to the called party or the calling party (which reads on column 2 lines 33-38); and a main processing device which assigns a resource of said data control system and identifies the state of the resource in response to a data call request of the base station (which reads on column 8 lines 60-68).

Regarding claim 43, Choi et al. in view of Bilgic et al. and further in view of Petch et

al. discloses everything claimed as applied above (see claim 1), in addition Choi et al. discloses

the calling party and the called party are mobile station (which reads on column 2 lines 33-38).

Allowable Subject Matter

3.   Claims 10-13,17-19, 35, and 36, are allowed.

Response to Arguments

4.   Applicant's arguments filed 2/17/05 have been fully considered but they are not

persuasive.

Applicant's arguments with respect to claim 1, That Bilgic does not disclose or suggest

that any discrimination is made between a voice call and a data call when transmitting a call,

this is not claimed. The examiner contends that the Bilgic reference was only used to disclose "

a switching system which determines a communication path which selectively provides a voice

communication service or a data communication service" (which reads on column 15 lines 40-

45 the network switch 120 initiates a resource assignment procedure, illustrated by shaded

region 508 in FIG. 5. By this procedure, a speech path (assuming voice data) or other bearer

data traffic path is established through the base station 112, base station controller 113 and

network switch 120).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (571)272-7847. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on 571-272-4090. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. Smith
July 7, 2005

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER